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<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/789,966	DE HEER ET AL.	
	Examiner	Art Unit	
	MARY STEELMAN	2191	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/26/2007 & 02/12/2008.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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### **DETAILED ACTION**

1. Claims 1-28 are pending. Claims 1 and 14 were amended 12/26/2007. Claims 1, 14, and 27 are further amended by Examiner's Amendment, as noted below.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eamon J. Wall, Reg. No. 39,414 on 02/12/2008.

The application has been amended as follows:

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**IN THE CLAIMS:**

1. (currently amended) A method for upgrading software in a control plane, comprising:

a) sending notification to one or more second bridges that a first bridge is scheduled for a control plane software upgrade thereby disturbing a first state of operation;

b) suspending VLAN registration information in the one or more second bridges while the software upgrade is taking place;

c) restoring the first state of the first bridge after the software upgrade has taken place; and

d) sending notification to the one or more second bridges of the network that the software upgrade of the first bridge has been completed;

wherein the first bridge operates in a network containing a plurality of bridges and the first bridge and the one or more of the second bridges form part of a VLAN; and

wherein the software upgrade provides enhanced bridge functions including one or more of assignment of port status, registering, deregistering and maintaining VLAN membership of the ports, and upgrading bridge programming.

14. (currently amended) A computer readable medium containing a program which, when executed, performs a method for upgrading software in a control plane, the method comprising:

- a) sending notification to one or more second bridges that a first bridge is scheduled for a control plane software upgrade, thereby disturbing the first state of operation;
- b) suspending VLAN registration information in the one or more second bridges while the software upgrade is taking place;
- c) restoring a state of the first bridge-after the software upgrade has taken place; and
- d) sending notification to the one or more second bridges of the network that the software upgrade of the first bridge has been completed;

wherein the first bridge operates in a network containing a plurality of bridges and the first bridge and the one or more of the second bridges form part of a VLAN; and

wherein the software upgrade provides enhanced bridge functions including one or more of assignment of port status, registering, deregistering and maintaining VLAN membership of the ports, and upgrading bridge programming.

27. (currently amended) A network bridge apparatus comprising:

a forwarding plane adapted to store VLAN membership information; and

a control plane, comprising a central processing unit, support circuits and memory, adapted for issuing and executing instructions that control upgrading of software of said network bridge apparatus according to said VLAN membership information including :

a) sending notification to one or more second bridges that the first bridge is scheduled for upgrading;

b) suspending VLAN registration information in the one or more second bridges while upgrading the first bridge;

c) restoring a state of file first bridge prior to it being updated; and

d) sending notification to the one or more second bridges of the network that the upgrading of the first bridge has been completed;

wherein the software upgrade provides enhanced bridge functions including one or more of assignment of port status, registering, deregistering and maintaining VLAN membership of the ports, and upgrading bridge programming.

**THE END**

*Allowable Subject Matter*

3. Claims 1-28 are allowed.

The following is an examiner's statement of reasons for allowance:

4. Regarding independent claim 1 (and similarly recited in independent claims 14 and 27) Fine, Finn, ANSI/IEEE Std 802.1D and other cited prior art, taken alone or in combination fails to teach:

“upgrading software in a control plane...sending notification to one or more second bridges that a first bridge is scheduled for a control plane software upgrade....suspending VLAN registration information in the one or more second bridges...restoring the first state of the first bridge after the software upgrade has taken place...sending notification to the one or more second bridges of the network that the software upgrade of the first bridge has been completed... wherein the software upgrade provides enhanced bridge functions including one or more of assignment of port status, registering, deregistering and maintaining VLAN membership of the ports, and upgrading bridge programming.”

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Moreover, evidence for modifying the prior art teachings, by one of ordinary skill in the art was not uncovered so as to result in the invention.

Thus all remaining dependent claims, claims 2-13, 15-26, and 28, are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman

02/14/2008

MARY STEELMAN  
PRIMARY EXAMINER

A handwritten signature in cursive script, appearing to read "Mary Steelman", is written over the printed name and title.